

SOURCE: (C) WPI / DERWENT

AN : 87-194483 #28!

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PN : JP62122671 A 870603 DW8728  
JP1031390 B 890626 DW8929

PR : JP850263526 851123

PA : (SENP ) SENJU SEIYAKU KK

IC : A61K33/00 ;A61L31/00 ;A61F9/00 ;A61K31/72

TI : High viscosity soln. for corneal damage prevention in eye operation - is prepd. by dissolving hydroxypropyl methyl cellulose or hyaluronate in buffer and adding e.g. alkali metal carbonate

AB : J62122671 In this process, hydroxypropylmethyl cellulose and/or hyaluronate is dissolved in a buffer contg. salts and/or sugars and the pH of the buffer is adjusted to 6-8 by adding alkali metal carbonate or bicarbonate.  
Pref. buffer is one whose compsn. resembles that of aq. humour. The buffer contains halides, sulphate, nitrate, acetate, citrate and tartrate of sodium, potassium or calcium. Pref. concn. is 0.9-1.1 wt./vol.% (pH 6.8).  
Usable sugars are glucose, xylitol, etc. Pref. concn. is 0.1-0.2 wt./vol.%.  
Hydroxypropylmethyl cellulose (HPMC) and hyaluronate are dissolved in the buffer to make final viscosity 1000-10000 centipoise. Pref. their concn. is 1.0-2.0 wt./vol.%. HPMC is added to the buffer at 75-85 deg.C.  
The bicarbonate salt is added to the buffer at less than 20 deg.C.  
USE/ADVANTAGE - The soln. is useful for preventing corneal damage in entropic operation.  
In an example, 0.7 g sodium chloride, 0.04 g potassium chloride, 0.03 g magnesium sulphate, 0.15 g glucose, 0.06 g sodium acetate, 0.1 g sodium citrate and 0.02 g calcium chloride were dissolved in 75 ml of sterile water and 2 g HPMC were dissolved in this buffer at 80 deg.C. 20 ml of a soln. contg. 0.2 g sodium bicarbonate was added and the pH of the mixt. soln. was adjusted to 7.4. After filtering and autoclaving, a high viscous soln. was obtd.. (3pp Dwg.No.0/0)